Comment on FCC 13-51, Access to NANPA Numbering Resources by VOIP Providers

Comment Submitted by Mike Ray on behalf of Terra Nova Telecom, Inc.

As a CLEC serving the State of Florida, we believe that there are numerous risks to the FCC's proposed policy of permitting non-certificated companies access to numbering resources. We believe that the evidence shows that this proposed policy will not only harm the reliability of the Public Switched Telephone Network by substantially increasing the overall percentage of telephone calls that do not complete as expected, but that such a change will not actually serve any positive purpose in today's environment.

First, under existing law and rules any company which demonstrates technical, administrative and financial capability can become a CLEC. This process provides checks and balances to ensure that the prospective utility does in fact possess the necessary capabilities to serve subscribers. It further ensures that those prospective utilities provide the required emergency services to their subscribers. Any VOIP provider certainly has the *option* to become a CLEC if it chooses to, which would then give the provider access to numbering resources. So, what is driving the need to circumvent the current process and give VOIP providers an advantage that CLECs who have followed the rules and complied with requirements do not enjoy? Since the FCC seems to have adopted a position that the carrier world will eventually go all-VOIP, what are the implications of creating a second set of VOIP companies that are unregulated, parallel to CLECs which are regulated and must bear the costs and duties therewith?

Numbering Resources and Interconnection

A very important consideration here is the distinction between obtaining numbering resources and obtaining carrier interconnection which is required for those resources to actually be useful. Since the Commission has not required carriers to interconnect via IP at this time, it would seem that the assignment of numbering resources to IP-only carriers would not have any practical value because those numbers would not be reachable from a majority of telephone subscribers on the PSTN without interconnection. When VoIP companies partner with CLECs today, the CLEC provides much more than just numbering resources. It provides *interconnection* so that the numbers obtained by the VOIP provider can send and receive calls to and from the PSTN as expected. We believe that these two valuable functions are inseparable in practice. Vonage's assertion that it will be able to interconnect using VoIP to the PSTN does not seem compatible with reality; numbering resources can only be homed to a single local tandem and a single Feature Group D tandem in the LERG. The proposed use of Neutral Tandem by Vonage seems to have one major unsolved issue, namely that there is no requirement that all carriers connect to Neutral Tandem to transit local calls to Vonage. The default mechanism today is that all carriers are reachable through the ILEC tandem in a specific LATA, and CLECs are required to connect to each ILEC local tandem in order to achieve reliable call delivery from other carriers. While Neutral Tandem may be willing to interconnect over VOIP, our experience is that no ILEC has ever made

VOIP interconnection available. In order to make Vonage's proposal viable, it would seem that there would need to be some requirement for all local TDM carriers and CMRS carriers to connect to Vonage's chosen tandem provider so that calls would be delivered to Vonage, which would be a substantial change in policy and of the overall PSTN architecture. Such a change and its myriad ripple-effects within the industry does not appear to have been contemplated in this proceeding.

Absent such a radical policy change, the almost certain result of Vonage's proposal would be that many calls originating from a TDM carrier and terminating to a Vonage number would fail. The calling party may then blame its carrier (the originating TDM carrier) for failing to complete the call, even though that failure would be beyond its reasonable control. This does not seem to serve the public interest; it seems to further undermine the integrity of the PSTN by substantially increasing the percentage of failed calls.

Number Portability

If non-certificated VOIP companies are permitted access to numbering resources, have the portability implications of such a move been fully explored? Certificated carriers must comply with state and federal rules for number portability, and must subscriber to the NPAC. If a VOIP company is not a CLEC, is it required to subscribe to the NPAC? How would carriers identify how to port numbers from a non-carrier entity, and what would the regulatory oversight be to enforce compliance upon the VOIP company? Our experience is that the state Public Service Commission has primary enforcement duties for number portability, but it does not appear that they recognize any ability to regulate VOIP companies in many cases. This could leave carriers with no ability to get regulatory help if a VOIP company violates portability rules either by porting numbers to itself without proper authorization or by refusing to release numbers to a carrier upon reasonable request.

Intercarrier Compensation, Fraud and Criminal Activity

We believe that the single largest reason that VoIP carriers choose not to become CLECs is to avoid Intercarrier Compensation liability. We have also seen very extensive mechanisms deployed by VoIP carriers to modify the signaling on calls sent to ILECs and CLECs, in order to mask the actual jurisdiction of the call and make all calls appear to be local in nature. Although the FCC has already prohibited this practice, it is still quite common. Until the FCC's ICC phase-down is completed a few years from now, we believe that any move to permit the assignment of numbering resources to non-certificated carriers will worsen this phenomenon, and cause further obscurity in determining the actual origin of calls delivered to certificated carriers which originate from VOIP companies. We would also like to comment that our larger concern about this intentional falsification of signaling is not one of compensation. We have noted significant criminal activity and fraud associated with falsified ANIs, and the inability to track a call to a regulated carrier (and escalate to a regulatory authority, if needed) is paramount. It does not appear that VOIP carriers are required to comply with the same intercarrier fraud mechanisms that

certificated carriers comply with, and the state regulatory oversight needed in some of these cases does not seem to exist when dealing with a VOIP carrier.

Exhaust of Numbering Resources

We also believe that a decision to offer NANPA numbering resources to VOIP carriers will almost certainly lead to accelerated exhaust of scarce numbering resources. As it stands today, many CLECs obtain the minimum 1000 telephone numbers in a rate center in order to serve a rate center that contains a few hundred homes, and then the CLEC actually assigns 4 numbers. This waste of resources expands exponentially when any VOIP carrier is permitted to obtain numbering resources, rather than only those who have endured the process of actually becoming a certificated carrier. At best, this practice seems likely to force many areas into an overlay prematurely which is undesirable for everyone. Current practice more efficiently uses the FCC's intermediary rules to allow VoIP providers to obtain small blocks of numbers from CLECs, allowing a more granular distribution of numbers.

As has also been expressed by other commenters, each CLEC (and, apparently each VOIP provider if they are to be granted direct access to numbering resources) must obtain an LRN block in each LATA which they intend to serve. This always requires a new NXX code, regardless of the availability of pooled numbers. If an LRN block of 10,000 numbers is obtained by a VOIP carrier in a rural rate center which contains a few hundred homes, even if 900 of those numbers are returned to pooling they will likely never be assigned. The mere assignment of the LRN to an additional provider thus puts more pressure on NPA exhaust than the assignment of individual numbers.

Geographic Distinction

The issue of geographic distinction of telephone numbers has been raised in the FCC's RFC. While it is certainly true that nomadic services have blurred the geographic distinction of telephone numbers, it is also true that non-nomadic providers and subscribers alike do still associate specific NPA-NXX combinations with a specific geographic area. Wireline carriers still use NPANXX geographic distinction as a mechanism for routing emergency calls to the correct PSAP. We suggest that simply because some carriers do not observe these distinctions does not lessen the importance of the distinctions for wireline subscribers and carriers. We believe that the effort to date of CMRS carriers to assign numbering resources within their proper geographic area on a best-effort basis is a reasonable one, and has not led to an overall loss of the distinction itself even though CMRS subscribers are nomadic.

Further, local calling scopes on the PSTN are determined by the terminating NPANXX of a call. Thus, regardless of choice of carrier a caller in Tampa, Florida with a phone number in the 813 area code is generally permitted to make a local call to another telephone number in the 813 area code at no cost. Subscribers are generally aware of which calls are local (which have no per-minute cost) to them and which are not. These subscribers are likely to be confused if local telephone numbers may suddenly

exist in any area code. This confusion is likely to be several orders of magnitude greater than the confusion already noted whenever an overlay area code is implemented into a region that previously had only one local area code.

CPNI Concerns

We also believe that there are significant CPNI concerns associated with this proposal. We have seen frequent requests for Customer Proprietary Network Information from various "VOIP companies". These companies in most cases have no idea what CPNI stands for, much less what a carrier's duties are to protect it. We believe that it would breach our duty to maintain CPNI as strictly confidential if we were to release a customer's records to any party that asked for them, rather than limiting such disclosure to other certificated carriers subject to CPNI regulations. This concern is compounded when a carrier uses an automated number portability portal as we do, where other certificated carriers are given complete access to all customer data for the purpose of conducting LNP activities.

Industry Databases and Call Routing

We believe that only one substantial change is required to the industry standard BIRRDS/databases at this time. Migration of interconnection trunking between carriers (and prospective VOIP companies seeking to become carriers) from TDM to IP need not involve changes to the databases, and we note that the characteristics of interconnection trunking in place today is not currently listed in those databases. We believe that carriers would place interconnection trunking orders for IP-based trunks through the same existing processes currently used for other trunking types. While the ordering process may need revision to accommodate that change, the industry standard databases should not. However, the single change that would be beneficial to all would be the ability to designate a primary and secondary route for each switch in the LERG/BIRRDS, and perhaps tertiary as well. Long-term, phasing out different types of trunks such as Feature Group D, Feature Group C and Local and merging those into a single interconnection route once Intercarrier Compensation has been abolished would also be helpful, and would relieve considerable unnecessary complexity. This would of course require unification of tariffs vs. ICAs, transport rates and accounting procedures, but those too should be addressed in the ongoing intercarrier dockets.

The Ongoing Importance of Telephone Number Jurisdiction

As the Commission decides whether or how to relax the restrictions upon issuing telephone numbers within the proper jurisdiction, we would like to point out two important points. First, the 911 system for landline calls heavily relies upon ratecenter relationships to the calling number's NPANXX. Since this point has already been made by other commenters, we will not belabor the point here.

However, an equally important point has to do with local interconnection for non-national carriers. Jurisdictional relationships may not be important to large national carriers, because they have local interconnection facilities throughout the nation to which they can natively transport calls for transiting. However, non-national CLECs (who are primarily small businesses) use Interexchange Carriers to reach geographic areas outside their network footprints. In those cases, the originating CLEC bears the cost of a long distance call when the called number is not within the CLEC's service area. However, a call from the same CLEC subscriber to a number within the CLEC's service area would be routed locally through an interconnection arrangement and would bear, at most, a reciprocal compensation cost. If the Commission were to decide that jurisdiction is no longer relevant to the issuance of telephone numbers, this could have devastating consequences to smaller carriers whose costs could exponentially increase over arbitrary number choices made by VOIP carriers. For instance, if a VOIP carrier decided to issue a Denver telephone number to a subscriber in Dallas, all non-national CLECs in Dallas would have to send that call to an IXC to complete, and then the CLEC would have to pay for it. This seems like it would disproportionately benefit national carriers and kill off small CLECs who could not bear these substantial extra costs. It seems unlikely that end users would be willing to pay significantly more to use a smaller local or regional carrier if the national carrier had such a cost disparity.

In closing, we believe that the premise that CLECs are TDM carriers and that VOIP providers are somehow incapable of being CLECs is false. As a CLEC, our company and many other CLECs possess both TDM and VOIP capabilities, and we believe that this distinction is being exploited not because of a technological difference or incompatibility, but as a mechanism for VOIP providers to subvert the regulatory requirements imposed upon CLECs and gain an unfair and unwarranted operational advantage. We are not suggesting that VOIP carriers should be denied access to numbering resources. We are suggesting that there is no legitimate, practical reason why such VOIP carriers should not be required to become a CLEC in order to obtain those resources. Any regulation or requirement that is currently imposed upon CLECs which is found to be overly burdensome or unnecessary should be repealed for the benefit of all CLECs, rather than creating a separate class of CLEC (even if by another name) that is exempt, just because it claims to be a VOIP provider. We agree with other commenters that it creates an unfair advantage if VOIP carriers are granted equal rights to CLECs, but are not burdened by all of the obligations that CLECs must contend with. Even if all of the technical barriers to this proposal as outlined above did not exist or were solved prior to implementation, the likely result of implementing this approach would be that existing CLECs and perhaps even ILECs and CMRS carriers would seek to re-designate themselves as VOIP carriers to escape regulatory oversight and the burdens of being a certificated carrier. This would almost certainly lead to poorer quality of service on the PSTN, and harm consumers.

Therefore, we respectfully suggest that if the Commission's goal is to facilitate migration to IP interconnection between all carriers, then perhaps a mandate for all carriers to provide an IP interconnection option to any other requesting carrier may be a more suitable means to accomplish that goal. This would provide some helpful relief for CLECs seeking to modernize their interconnection arrangements, and would encourage VOIP providers to become CLECs and enjoy that benefit, as well as numbering resources. This would also fully mitigate ICC concerns associated with this proposal, as VOIP companies functioning as CLECs would not be treated any differently than any other CLEC exchanging VOIP call traffic.

Respectfully submitted,

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